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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,408	10/12/2001	James A. Hagan	ROC920010283US1	9968

7590 03/31/2004
James R. Nock
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EXAMINER

AHMED, SHAMIM

ART UNIT	PAPER NUMBER
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1765

DATE MAILED: 03/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

09/976,408

Applicant(s)

HAGAN ET AL.

Examiner

Shamim Ahmed

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1,11 are rejected under 35 U.S.C. 102(b) as being anticipated by Vines et al (6,048,789).

Vines et al disclose a cleaning polish composition including ammonium hydroxide as an etchant and citric acid as a carrying fluid for removing slurry particles and contaminants from a polished surface in order to improve the surface finish and remove particles (col.1, lines 52-56).

3. Claims 1,11 are rejected under 35 U.S.C. 102(b) as being anticipated by Carpio (5,840,629).

Carpio (5,840,629) disclose a composition including a chromium salt (as an etchant) and an acid, which reads on the claimed limitation of carrying fluid (col.1, lines 65-col.2, lines10).

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4. Claims 1-3, 7-8, 11-12 and 14-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Small et al (6,251,150) as evidenced by Sugawa et al (3,986,210).

As to claim 1, 12, 14-15, Small et al disclose a composition, which includes spinel particles, which reads on the claimed etchant including cations of Fe^{2+} , Al, Zr, Ni or mixture thereof and the composition is substantially free of particles (col.5, lines 9-54).

Small et al also disclose that the composition includes at least one liquid component, which resembles applicant's carrying fluid (col.6, lines 11-17).

As to claims 2-3, Small et al teach that the substrate can be a ceramic disk, or hard disk or magnetic rewrite disk heads and the like (col.6, lines 28-32).

As to claims 7-8, Small et al's magnetic disk head inherently includes the substrate surface is permalloy or Sendust as evidenced by Sugaya et al (col.2, lines 51-56).

5. Claims 1-12 and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Piltingsrud (6,402,851).

As to claims 1-2 and 12, Piltingsrud discloses a cleaning polish composition comprising an acid as a carrying fluid and component of aluminum ion, which resemble as an etchant for super finishing a glass substrate and also for removing attached slurry particles (col.3, lines 39-61 and col.5, lines 49-55).

As to claims 4-6, Piltingsrud also discloses that the pH of the composition is less than about 3 (col.4, lines 6-9).

As to claims 7-8, Piltingsrud teaches that the substrate could be a computer disk drive having a magnetic substance such as permalloy (ALMg/NiP) and the magnetic coating inherently includes sandust (col.1, lines16-25).

As to claims 9-11, Piltingsrud teaches that the composition could be a basic solution having a pH of 9 to about 12 (col.4, lines 13-15).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Small et al (6,251,150) as evidenced by Sugaua et al (3,986,210) in view of Applicant's admitted prio art.

Small et al discussed that the etchant comprises Zn, Fe, Ni, Se etc. above in the paragraph 4 but fail to disclose the etchant includes Ce.

However, Applicant's admitted prior art discloses that the etchant comprises Ce, Zn, Ni etc. (see page 8, lines 8-12).

Therefore, it would have been obvious to one of ordinary skilled in the art at the time of claimed invention to combine Applicant's admitted prior art because Ce, Zn, Fe, Ni, all of them are functionally equivalent for etching metal as taught by Applicant's admitted prior art.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Berman et al (5,893,756), Zhou et al (6,090,214) and Yang et al (6,024,106) disclose conventional post-CMP cleaning process utilizing a cleaning composition comprising a base and/or acid and Harris et al (4,078,980) disclose a composition including an acid and chromium salt.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shamim Ahmed whose telephone number is (571) 272-1457. The examiner can normally be reached on M-Thu (7:00-5:30) Every Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine G Norton can be reached on (571) 272-1465. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Shamim Ahmed
Examiner
Art Unit 1765

SA
March 9, 2004

NADINE G. NORTON
SUPERVISORY PATENT EXAMINER

